Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark is to be embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information from the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling an amount of the electronic watermark data to be embedded in the image data according to the image information amount signal detected by said image information amount detecting means and the encoding information detected by said encoding information detecting means and fed back to the electronic watermark embedding means.

2. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark

in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark is to be embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information from the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling a position of the image data at which the electronic watermark data is embedded in the image data according to the image information amount signal detected by said image data amount detecting means and the encoding information detected by said encoding information detecting means and fed back to the electronic watermark embedding means.

3. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark is to be embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information from the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling strength of the electronic watermark data to be embedded in the image data according to the image information

amount signal detected by said image data amount detecting means and the encoding information detected by said encoding information detecting means and fed back to the electronic watermark embedding means.

4. (Previously Presented) An electronic watermark embedding apparatus according to claim 1, wherein said electronic watermark embedding means controls an amount of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the image information amount signal.

5. (Previously Presented) An electronic watermark embedding apparatus according to claim 2, wherein said electronic watermark embedding means controls a position of the image data at which the electronic watermark data of a particular spatial frequency component is embedded in the image data according to the image information amount signal.

6. (Previously Presented) An electronic watermark embedding apparatus according to claim 3, wherein said electronic watermark embedding means controls strength of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the image information amount signal.

7. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark has been embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information from the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling an amount of the electronic watermark data to be embedded in the image data according to the image information amount signal detected by said image data amount detecting means and the encoding information detected by said encoding information amount detecting means and fed back to the electronic watermark embedding means.

8. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark has been embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information of the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling a position of the image data at which the electronic watermark data is embedded in the image data according to the image information amount signal and the encoding information detected by said image information amount detecting means and fed back to the electronic watermark embedding means.

9. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

image information amount detecting means for detecting an amount of information of the image data in which the electronic watermark has been embedded and for outputting a signal representing the detected image information amount; and

encoding information detecting means for detecting encoding information from the image data in which the electronic watermark has been embedded and which has been encoded, and feeding the detected encoding information back to the electronic watermark embedding means,

said electronic watermark embedding means controlling strength of the electronic watermark data to be embedded in the image data according to the image information amount signal detected by said image information amount detecting means and the encoding information detected by said image information detecting means and fed back to the electronic watermark embedding means.

10. (Previously Presented) An electronic watermark embedding apparatus according to claim 7, wherein said electronic watermark embedding means controls an amount of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the image information amount signal.

11. (Previously Presented) An electronic watermark embedding apparatus according to claim 8, wherein said electronic watermark embedding means controls a position of the image data at which the electronic watermark data of a particular spatial frequency component is embedded in the image data according to the image information amount signal.

12. (Previously Presented) An electronic watermark embedding apparatus according to claim 9, wherein said electronic watermark embedding means controls strength of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the image information amount signal.

13. (Previously Presented) An electronic watermark embedding apparatus according to claim 1, wherein said encoding information detecting means outputs, as the encoding information, at least one of a quantizer scale code value, an MQUANT value, and a quantizer matrix value in an ISO/IEC standard 13818 (to be abbreviated as MPEG2 herebelow).

14. (Previously Presented) An electronic watermark embedding apparatus according to claim 13, wherein said encoding information (to be referred to as y herebelow) has a relationship of $y = f(x)$, where f represents a function, with a value (to be referred to as x herebelow) including at least one of the quantizer scale code value, the MQUANT value, and the quantizer matrix value, said relationship including a relationship of $dy/dx \geq 0$.

15. (Previously Presented) An electronic watermark embedding apparatus according to claim 1, wherein said electronic watermark embedding means conducts a control operation to increase the amount of the electronic watermark to be embedded in the image data within a predetermined range when an amount of image information indicated by the image information amount signal increases.

16. (Previously Presented) An electronic watermark embedding apparatus according to claim 2, wherein said electronic watermark embedding means changes, when an amount of image information indicated by the image information amount signal changes, the position of the image data at which the electronic watermark data is embedded in the image data to a position at which the electronic watermark cannot easily fade.

17. (Previously Presented) An electronic watermark embedding apparatus according to claim 3, wherein said electronic watermark embedding means conducts a control operation to increase the strength of the electronic watermark to be embedded in the image data within a predetermined range when an amount of image information indicated by the image information amount signal increases.

18. (Previously Presented) An electronic watermark embedding apparatus according to claim 1, wherein said electronic watermark embedding means operates in cooperation with a format converting unit to convert the image data in which the electronic watermark has been embedded into data of an MPEG2 format.

19. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

format converting means for converting the image data into data of an MPEG2 format; and

converted image information detecting means for detecting an amount of information of the image data converted by said format converting means into data of an MPEG2 format and for outputting a signal representing the converted image information, and feeding the converted image information signal back to the electronic watermark embedding means;

said electronic watermark embedding means controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the converted image information signal fed back to the electronic watermark embedding means.

20. (Currently Amended) A format converter for converting a format of the image data into an MPEG2 format, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

format converting means for converting the image data into data of an MPEG2 format; and

converted image information detecting means for detecting an amount of information of the image data converted by said format converting means into data of an MPEG2 format and for outputting a signal representing the converted image information, and feeding the converted image information signal back to the electronic watermark embedding means;

said electronic watermark embedding means controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the converted image information signal fed back to the electronic watermark embedding means.

21. (Currently Amended) An electronic watermark embedding method of embedding an electronic watermark in image data, comprising the steps of:

generating electronic watermark data of an electronic watermark to be embedded in the image data;

embedding the electronic watermark in the image data using an electronic watermark embedding means;

converting the image data in which the electronic watermark data has been embedded into data of an MPEG2 format;

detecting an amount of information of the image data converted into data of the MPEG2 format and outputting a signal representing the detected amount of information to

be fed back to the electronic watermark embedding means; and

controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the detected amount of information of the image data fed back to the electronic watermark embedding means.

22. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data; .

electronic watermark embedding means for embedding the electronic watermark in the image data; and

format converting means for converting the image data into data of an MPEG2 format,

said format converting means comprising image information amount detecting means for detecting an amount of information of the image data converted into data of an MPEG2 format and for outputting an image information amount signal, and feeding the image information amount signal back to the electronic watermark embedding means, wherein

said electronic watermark embedding means controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the image information amount signal fed back to the electronic watermark embedding means.

23. (Currently Amended) A format converter for converting a format of image data into an MPEG2 format, said format converter operating in cooperation with:

electronic watermark data generating means for generating data of an electronic watermark to be embedding in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data;

format converting means for converting the image data into data of an MPEG2 format,

said format converting means including image information amount detecting means for detecting an amount of information of the image data converted into data of an MPEG2 format and for outputting a signal representing the detected image information amount, and feeding the image information amount signal back to the electronic watermark embedding means; and

~~an electronic watermark embedding apparatus,~~

said electronic watermark embedding ~~apparatus~~ means detecting a quantizing step for a high-frequency component of spatial frequency components of the image data according to the image information amount signal, fed back to the electronic watermark embedding means, and controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof.

24. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark embedding means for embedding the electronic watermark in the image data; and

format converting means for converting said image data into data of an MPEG2 format,

said format converting means including image information amount detecting means for detecting an amount of information of the image data converted into data of an MPEG2 format and for outputting a signal representing the detected image information amount, and feeding the image information amount signal back to the electronic watermark embedding means,

said electronic watermark embedding means detecting a quantizing step for a high-frequency component of spatial frequency components of the image data according to

the image information amount signal, fed back to the electronic watermark embedding means, and controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof.

25. (Currently Amended) An electronic watermark embedding method of embedding an electronic watermark in image data, comprising the steps of:

generating data of an electronic watermark to be embedded in the image data;

embedding the electronic watermark in the image data using an electronic watermark embedding means; and

converting the image data in which the electronic watermark has been embedded into data of an MPEG2 format,

detecting an amount of information of the image data converted into data of an MPEG2 format and outputting a signal representing the detected image information amount to be fed back to the electronic watermark embedding means; and

detecting a quantizing step for a high-frequency component of spatial frequency components of the image data according to the image information amount, fed back to the electronic watermark embedding means, and controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the detecting result.

26. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark data embedding means for embedding data of the electronic watermark in the image data; and

electronic watermark information amount detecting means for detecting information of the electronic watermark in the image data in which the electronic watermark has been embedded and which has been encoded and for outputting electronic

watermark information, and feeding the detected electronic watermark information back to the electronic watermark data embedding means,

said electronic watermark embedding means controlling an amount of the electronic watermark data to be embedded in the image data according to the detected electronic watermark information fed back to the electronic watermark embedding means.

27. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedded in the image data;

electronic watermark data embedding means for embedding data of the electronic watermark in the image data; and

electronic watermark information amount detecting means for detecting information of the electronic watermark in the image data in which the electronic watermark has been embedded and which has been encoded and for outputting electronic watermark information, and feeding the detected electronic watermark information back to the electronic watermark data embedding means,

said electronic watermark embedding means controlling a position of the image data at which the electronic watermark data is embedded in the image data according to the detected electronic watermark information fed back to the electronic watermark embedding means.

28. (Currently Amended) An electronic watermark embedding apparatus for embedding an electronic watermark in image data, comprising:

electronic watermark data generating means for generating data of an electronic watermark to be embedding in the image data;

electronic watermark data embedding means for embedding data of the electronic watermark in the image data; and

electronic watermark information amount detecting means for detecting

information of the electronic watermark in the image data in which the electronic watermark has been embedded and which has been encoded and for outputting electronic watermark information, and feeding the detected electronic watermark information back to the electronic watermark data embedding means,

said electronic watermark embedding means controlling strength of the electronic watermark data to be embedded in the image data according to the detected electronic watermark information fed back to the electronic watermark embedding means.

29. (Previously Presented) An electronic watermark embedding apparatus according to claim 26, wherein said electronic watermark embedding means controls an amount of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the electronic watermark information.

30. (Previously Presented) An electronic watermark embedding apparatus according to claim 27, wherein said electronic watermark embedding means controls a position of the image data at which the electronic watermark data of a particular spatial frequency component is embedded in the image data according to the electronic watermark information.

31. (Previously Presented) An electronic watermark embedding apparatus according to claim 28, wherein said electronic watermark embedding means controls strength of the electronic watermark data of a particular spatial frequency component to be embedded in the image data according to the electronic watermark information.

32. (Currently Amended) An electronic watermark embedding apparatus according to claim 26, wherein said electronic watermark information amount detecting means detects information regarding the electronic watermark in the image data in which the electronic watermark has been imbedded and for which image data compression processing is then executed according to an ISO/IEC standard 13818 (abbreviated as MPEG2) and outputs

the information.

33. (Previously Presented) An electronic watermark embedding apparatus according to claim 26, wherein said electronic watermark embedding means conducts a control operation to decrease the amount of an electronic watermark to be embedded in the image data within a predetermined range when an amount of electronic watermark information indicated by the electronic watermark information increases.

34. (Previously Presented) An electronic watermark embedding apparatus according to claim 26, wherein said electronic watermark embedding means conducts, when an amount of electronic watermark information indicated by the electronic watermark information decreases, a control operation to increase the amount of an electronic watermark to be embedded in the image data within a predetermined range.

35. (Previously Presented) An electronic watermark embedding apparatus according to claim 27, wherein said electronic watermark embedding means changes, when an amount of electronic watermark information indicated by the electronic watermark information decreases, the position of the image data at which an electronic watermark is embedded in the image data to a position at which the electronic watermark cannot easily fade.

36. (Currently Amended) An electronic watermark embedding apparatus according to claim 27, wherein said electronic watermark embedding means changes, when an amount of electronic watermark information indicated by the electronic watermark information increases, the position of the image data at which an electronic watermark is embedded in the image data to a position at which the electronic watermark cannot easily be perceived.

37. (Previously Presented) An electronic watermark embedding apparatus according to claim 28, wherein said electronic watermark embedding means conducts a control

operation to decrease the strength of the electronic watermark signal to be embedded in the image data within a predetermined range when an amount of electronic watermark information indicated by the electronic watermark information increases.

38. (Previously Presented) An electronic watermark embedding apparatus according to claim 28, wherein said electronic watermark embedding means conducts a control operation to increase strength of the electronic watermark signal to be embedded in the image data within a predetermined range when an amount of electronic watermark information indicated by the electronic watermark information decreases.

39. (Previously Presented) An electronic watermark embedding apparatus according to claim 26, wherein said electronic watermark embedding means operates in cooperation with a format converting unit to convert the image data in which the electronic watermark has been embedded into data of an MPEG2 format.

40. (Currently Amended) An electronic watermark embedding method of embedding an electronic watermark in image data, comprising the steps of:

providing data of an electronic watermark to be embedding in the image data;

embedding the electronic watermark in the image data;

detecting and feeding back information regarding the electronic watermark in the image data in which the electronic watermark has been embedded; and

controlling at least one of an amount of the electronic watermark data to be embedded in the image data and strength thereof according to the information regarding the electronic watermark in the image data which is detected and fed back by the detecting step.